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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/985,814	11/06/2001	Allen Fong-Chin Lin	L9079.01115	4324

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EXAMINER	
YAO, SAMCHUAN CUA	

ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 02/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/985,814	LIN, ALLEN FONG-CHIN
	Examiner	Art Unit
	Sam Chuan C. Yao	1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 January 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Note:

Claims 1 and 3 are indefinite, because a phrase *"the cooling/shaping device"* does not have a positive antecedent basis.

Claim 3 is also indefinite, because *"the transverse orientation device"* does not have a positive antecedent basis.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000211008 A in view of Lin (US 5,552,011) and optionally further in view of Schut et al (US 6,376,058).

JP '008, drawn to a process of making a 3-layer bi-axially oriented polypropylene pearl gloss synthetic paper, substantially teaches the process recited in claim 1 (see the whole disclosure of a computer English translation; for instance,

limitations (1) and (2), see page 3 paragraph [0006] to page 4 line 10 and figure 4; limitation (3), see page 4 line 7 and page 5 discussion of extruder equipment 1; page 5 last paragraph to page 6 line 4; and limitations 5-8, see page 6 paragraph 1; also see pages 7-9). JP '008 further teaches that *"[t]he production rate of a manufacturing process is quick and reaches in a maximum of 3.5[?] in an hour"* at a low production cost (question mark added, because it's not legible; pages 9-10). JP '008 differs from the recited claims in that, JP '008 does not appear to teach blending calcium carbonate master batch (40-70 wt%) and titanium dioxide (30-60 wt%) with other components in compositions (1) and (2) before compositions (1) and (2) are fed into their respective extruders. However, it would have been obvious in the art to blend calcium carbonate master batch (60 wt%) and titanium dioxide master-batch (50 wt%) with other components in composition limitations (1) and (2) and use these composition limitations as feed materials in an extrusion operation taught by JP '008, because: a) Lin '011, drawn to making a 3-layer bi-axially oriented polypropylene pear synthetic paper of the type taught by JP '008, teaches the desirability of forming master-batches of calcium carbonate (60 wt%) and titanium dioxide master-batch (50 wt%), blending the master-batches with other components of polypropylene and/or polyethylene compositions for use as feed materials in an extrusion operation (examples 1-3; figure 4); and optionally, b) Schut et al teaches using an inorganic master batch (25 wt% LDPE, 25 wt% calcium carbonate and 50 wt% titanium) to form an inorganic filled polymeric blend, and then feeding the inorganic filled

polymeric blend to an extruder to prevent the inorganic powder from *"coming to the surface to cause dusting"* since *"the polyethylene matrix is in a sticky molten state"* so that it *"appears to bind"* the inorganic powders (col. 6 lines 38-62). Although not explicitly disclosed, it is implicitly understood that, in forming a master batch, an inorganic powder must be blended into a polypropylene resin to form a desired dispersion. In any event, it would have been an obvious expediency in the art to blend an inorganic powder and a polypropylene resin together in forming a master batch so that the inorganic powder is uniformly disperse in the polypropylene resin, thereby providing a polypropylene feed material which has a consistent characteristic.

As for a limitation in limitation (6) of *"cooling down at a temperature of 25 °C"*, see toward the bottom on page 7 of JP '008 regarding *"annealing and controls the contraction of a synthetic paper"* and example 1 of Lin '011 regarding tempering and cooling to control its reducing rate. The recited cooling temperature would have been obvious in the art, because one in the art would have applied a conventional cooling temperature or would have determined, by routine experimentation, an optimal cooling temperature.

With respect to claim 2, the recited air-drawing devices recited in this claim is conventional in the art. Various types of air-drawing device are used for venting of volatile materials emitted during an extrusion operation.

With respect to claim 5, see page 4 of the JP '008 patent.

5. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references set forth in numbered paragraph 4 as applied to claim 1 above, and further in view of Tunashima et al (US 6,126,915).

It would have been obvious in the art to surface treat inorganic powder in forming a master-batch in the modified process taught by JP '008, because it is a common practice in the art to surface treat inorganic powder in forming a master-batch to enhance the characteristics of an extruded sheet as exemplified in the teachings of Tunashima et al (abstract; col. 1 lines 14-27).

With respect to claim 4, see column 3 lines 43-67 of the Lin '011.

Response to Arguments

6. Applicant's arguments filed 01-08-04 have been fully considered but they are not persuasive.

In response to Counsel's arguments on page 12 full paragraph 3 regarding the Schut et al patent, it is respectfully submitted that, one in the art reading, the Schut et al patent as a whole, would have readily recognized and appreciated that, the benefit of forming a master batch by incorporating inorganic powder into polyethylene can also be extended to a polypropylene master batch. One would have readily understood that, just like a polyethylene matrix, at an extrusion temperature of a polypropylene matrix, the polypropylene matrix is in a sticky state to thereby bind inorganic powder in the polypropylene matrix so that an inorganic powder dusting problem is also obviated. Equally important, as noted above, Lin '011, drawn to making a 3-layer bi-axially oriented polypropylene pear

synthetic paper of the type taught by JP '008, teaches the desirability of forming master-batches of calcium carbonate (60 wt%) and titanium dioxide master-batch (50 wt%), blending the master-batches with other components of polypropylene and/or polyethylene compositions for use as feed materials in an extrusion operation (examples 1-3; figure 4). For these reasons, it would have been obvious in the art to blend calcium carbonate master batch (60 wt%) and titanium dioxide master-batch (50 wt%) with other components in composition limitations (1) and (2) and use these composition limitations as feed materials in an extrusion operation taught by JP '008.

As for Counsel's argument on page 13 full paragraph 13 regarding a prefabricating step (i.e. blending an inorganic powder in a polypropylene matrix to obtain a required dispersion) recited in a preamble, although not explicitly disclosed, in forming a master batch suggested in the collective teachings of the references, an inorganic powder and polypropylene matrix must be blended together to a desired dispersion (i.e. form a polypropylene feed material with a uniformly dispersed inorganic powder).

As for Counsel's argument on page 13 full paragraph 2 regarding the modification of the Schut et al patent or the Lin patent, it should be noted that, the claims are rejected as being obvious over JP '088 in view of these two references and NOT Schut et al or Lin patent in view of JP '088. Equally important, Examiner strongly disagrees with Counsel's assertion that, the combined references do not teach forming master batches before adding to

extruders. Counsel's attention is directed to column 2 lines 50-62 of the Lin patent and column 6 lines 38-62 of the Schut et al patent.

Finally as for Counsel's argument on page 13 last full paragraph, Examiner agrees with Counsel that Examiner has a burden to address any differences between pending claims and recited references **noted by Applicants**. It is Examiner's position that, any differences between pending claims and recited references noted by Counsel have been addressed by Examiner. If not, it is suggested for Counsel to cite any difference(s) not address by the Examiner. To simplify the issue at hand, the generic statement which Counsel found objectionable has been removed.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (571) 272-1224. The examiner can normally be reached on Monday-Friday with second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sam Chuan C. Yao
Primary Examiner
Art Unit 1733

Scy
02-05-04